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United States
Department of
Agriculture

Soil
Conservation
Service



Salt River
Valley
Water Users
Association

Arizona
Department of
Water
Resources

Water Supply Outlook

for Arizona

Federal-State-Private
Cooperative
Snow Surveys



MAR. 1, 1983

Issued by

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COVER PHOTO - Fresh powder snow
on Elephant Mountain, near West
Fork of Hyalite Creek, Montana



1983 WATER SUPPLIES IN ARIZONA ARE FORECAST TO BE MUCH ABOVE AVERAGE FOR SURFACE WATER SOURCES

WATER SUPPLY

Surface water supplies will be much above average in Arizona during 1983. Forecasts based on March 1 watershed conditions call for above average streamflow volumes for the period March through May. Storms which have entered the state since March 2 have reinforced these forecasts. The Salt River is expected to produce 194% of average discharge; the Verde River, 159%; and Tonto Creek, 209% of average. These streams are forecast to supply 775,000 acre-feet of water to the Salt River Project system by the end of May. The Gila River at Virden is forecast at 257% of average while the San Francisco River at Clifton is expected to run at 251% of average. Below the confluence of these streams the Gila River at Solomon should experience 289% of average flow over the three-month period. Streamflow on the Little Colorado River above Lyman Reservoir is forecast at 183% of average.

SNOW COVER

Snow surveys conducted near March 1 show that the percent of average water equivalent in the mountain snowpack had decreased since February 15 due to unseasonably warm temperatures and little stormy weather. Most of this decrease resulted from melt loss on areas below 7700 feet elevation. However, the snowpack was still well above average for March 1.

The snowpack was 174% of average on the Salt River Watershed; 213% of average on the Verde River; 218% on the Gila-San Francisco drainage; and 150% of average on the upper Little Colorado River.

PRECIPITATION

Precipitation was heavy during the first two weeks of February. Freezing levels were low enough that significant snow fell as low as 5000 feet elevation with snow actually falling down to 3000 feet. The snow below 7000 feet soon melted, however. Mid-February was essentially clear with unseasonably high temperatures. Less intense storms crossed the state during the last week of the month causing light precipitation. On February 28 precipitation in the 0.5 inch range was reported in Sedona and Williams with lighter precipitation over other parts of the state. A strong storm system entered the state on March 2 and remained until March 4. During this storm period the watersheds received precipitation ranging generally between 1.0 and 2.5 inches. Intensities were high at times. Phoenix itself received 2.54 inches during this storm.

STREAMFLOW

Runoff was heavy in early February in response to the precipitation received during the first half of the month. Even though the storms passed on through the state, runoff continued, and was greatly above average for the month. The Salt River Project reported a February inflow to their reservoir system of 491,500 acre-feet. As a result, it was necessary to release 434,000 acre-feet during the month. February flow on the Gila River at Solomon was 144,500 acre-feet. February observed streamflow is represented in the following table:

<u>Stream</u>	<u>Flow - % of Average February 1983</u>
Salt River	333%
Tonto Creek	921%
Verde River	476%
Gila River at Solomon	414%
Gila River at Virden	356%
San Francisco River at Clifton	373%

RESERVOIR STORAGE

On March 1 the combined storage of six Salt River Project reservoirs was 1,711,000 acre-feet, which is 85% of capacity. Releases into the Salt River were at the rate of 1600 cfs on March 1. In response to the storm which passed through Arizona between March 2 and 4 these releases were increased to 15,000 cfs by March 5. By March 6 the release had been reduced to 11,000 cfs.

Lake Pleasant reported 152,000 acre-feet on March 1 at 96% of capacity. Releases from this reservoir began on March 2 at 500 cfs, increased to 8,000 cfs by March 4, and were reduced to 1,000 cfs by March 6.

Storage in Painted Rock Dam was 288,000 acre-feet on March 1 with releases at 350 cfs. Releases were increased to 2,000 cfs.

San Carlos Reservoir reported storage of 363,400 acre-feet on March 1 at 39% of capacity.

Combined storage of four major reservoirs on the Colorado River was 48,863,000 acre-feet at 91% of capacity.

ABOUT MARCH

STREAMFLOW FORECASTS

1, 1983

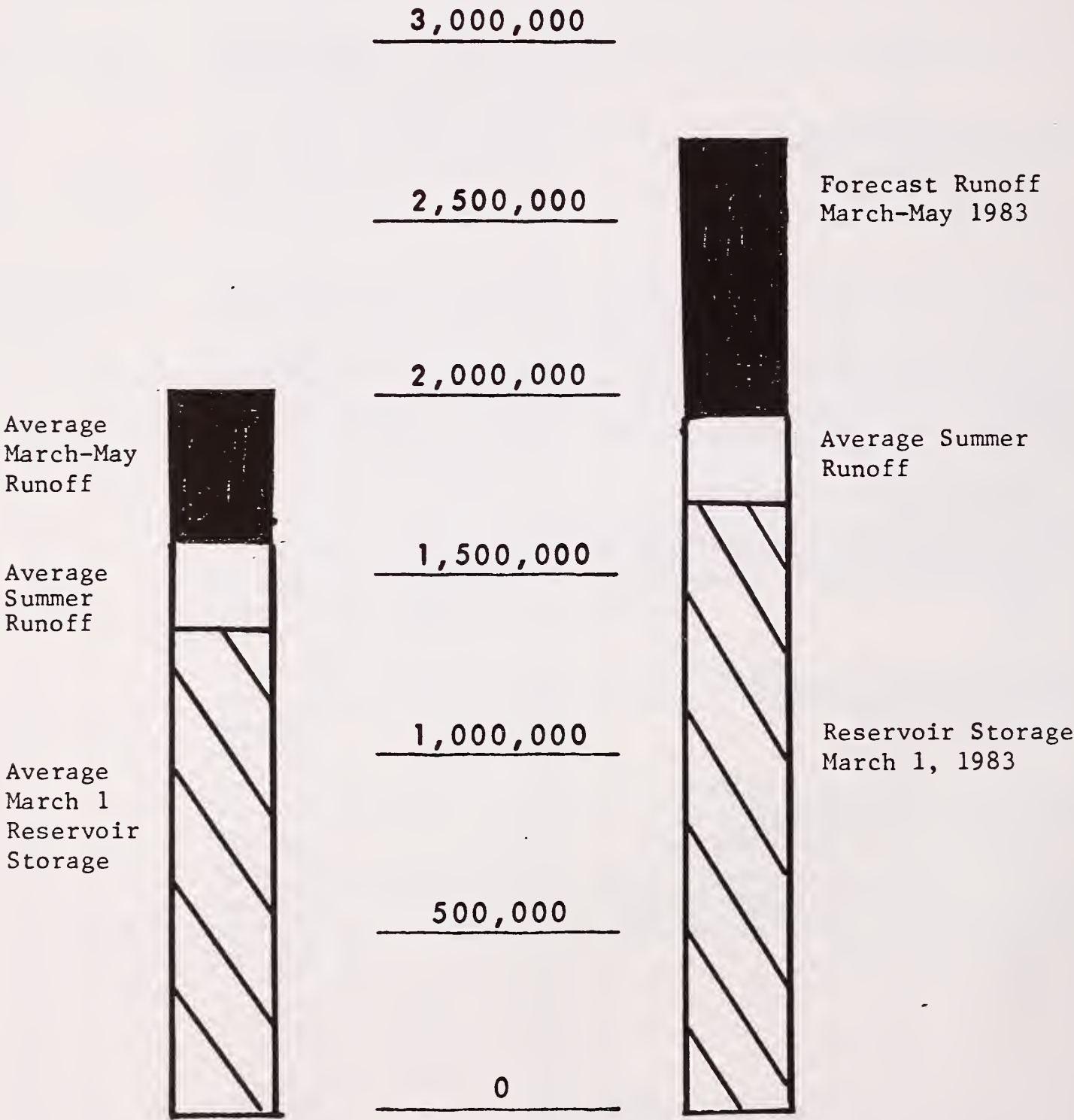
STREAMFLOW FORECASTS		1, 1983		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT		FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET		
		Thousand Acre Feet	Percent of Average		Last Year	Average †	
<u>SALT RIVER DRAINAGE</u>							
Salt near Roosevelt		490	194	Mar-May	352.7	252.9	
"		175	207	March	168.5	84.6	
Tonto Creek near Roosevelt		60	209	Mar-May	75.3	28.7	
"		50	316	March	62.7	15.8	
Verde River above Horseshoe		225	159	Mar-May	306.4	141.8	
"		150	253	March	259.4	59.2	
Total Salt River Project Streams		775	183	Mar-May	734.4	423.4	
"		375	235	March	490.6	159.6	
<u>GILA RIVER DRAINAGE</u>							
Gila River at Calva		205	311	Mar-May	54.9	65.9	
Gila River near Gila		98	244	Mar-May	46.2	40.2	
Gila River near Solomon		274	289	Mar-May	111.7	94.9	
"		140	320	March	54.7	43.8	
Gila River near Virden		125	257	Mar-May	65.4	48.6	
Frisco River at Clifton		123	251	Mar-May	37.9	49.0	
Frisco River at Glenwood		58	246	Mar-May	14.7	24.4	
<u>LITTLE COLORADO RIVER DRAINAGE</u>							
Little Colo. River above Lyman Dam		19	183	Mar-June	---	10.4	
Greer		9.0	127	Mar-June	---	7.1	
<u>GRANITE CREEK DRAINAGE</u>							
Granite Creek		2.5	---	Mar-May	---	---	
Willow Creek		1.5	---	Mar-May	---	---	
<u>MIMBRES RIVER DRAINAGE</u>							
Mimbres River near Mimbres		11.8	---	Mar-May	---	---	
<u>COLORADO RIVER DRAINAGE</u>							
Virgin River near Littlefield		72	---	Apr-June	49.1	47.9	
Lake Mary Inflow		5.7	133	Mar-May	---	4.3	
† Based on 15-year period, 1963-77							
* Average for less than 15 years.							

WATER SUPPLY INVENTORY SALT RIVER VALLEY SYSTEM

IN ACRE-FEET

AVERAGE WATER SUPPLY
MARCH 1

ANTICIPATED WATER SUPPLY
MARCH 1, 1983



Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

RESERVOIR STORAGE (Thousand Acre Feet) ABOUT MARCH 1, 1983

BASIN or STREAM	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
GILA RIVER DRAINAGE					
Agua Fria	Lake Pleasant	157.6	152.0	69.0	75.5
Granite	Watson Lake	4.7	4.5	4.6	3.0
Granite	Willow Creek	6.1	5.6	2.2	2.9*
Gila	San Carlos	935.0	363.0	265.0	252.0
Gila	Painted Rock Dam	2,492.0	288.0	0	---
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,709.0	1,514.0	1,206.0	1,227.0
Verde (2)	Bartlett and Horseshoe	309.6	197.0	201.0	140.3
Salt and Verde	6 Salt River Project Reservoirs	2,019.0	1,711.0	1,407.0	1,367.0
COLORADO RIVER DRAINAGE					
Colorado	Lake Havasu	619.4	553.0	559.0	541.4
Colorado	Lake Mohave	1,810.0	1,645.0	1,632.0	1,673.0
Colorado	Lake Mead	26,159.0	24,435.0	23,248.0	17,526.0
Colorado	Lake Powell	25,002.0	22,231.0	19,486.0	10,064.0
Little Colorado	Lyman	--	--	--	15.6
Little Colorado	Show Low Lake	5.1	4.9	0.8	1.8
† Based on 15-year average, 1963-77					
* Average is for less than 15 years of record					

† Based on 15-year average, 1963-77

* Average is for less than 15 years of record

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF.	
		Last Year	Average
<u>ABOUT FEBRUARY 15, 1983¹</u>			
Gila	10	236	236
Salt	10	161	217
Verde	10	111	222
Little Colorado	5	149	182
<u>ABOUT MARCH 1, 1983</u>			
Gila	10	212	218
Salt	10	146	174
Verde	10	101	213
Little Colorado	5	117	150

SNOW ABOUT MARCH 1, 1983

SNOW ABOUT MARCH 1, 1983		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
SALT RIVER						
Baldy*	9220	2/28	40	12.6	8.0	6.5
BALDY SNOTEL	9220	3/1	--	14.7	8.5	---
Beaver Head	8000	2/28	20	6.7	2.1	2.3
BONITA ROCK SNOTEL	8270	---	--	---	10.6	---
Canyon Creek	7500	2/28	13	4.5	4.0	3.3
Canyon Point	7600	2/28	20	6.8	6.5	3.8**
Coronado Trail	8400	2/28	22	7.0	2.9	2.7
CORONADO TRAIL SNOTEL	8400	3/1	--	5.9	2.0	---
Forest Dale	6430	NO SURVEY			0.0	0.6
Ft. Apache	9160	2/28	39	12.2	9.0	7.1
Hannagan Meadows	9090	2/28	53	17.0	9.5	8.2**
HANNAGAN MEADOWS SNOTEL	8960	3/1	--	20.3	10.7	---
Hawley Lake	8250	NO SURVEY			10.2	6.2**
HAWLEY LAKE SNOTEL	8250	---	--	---	9.8	---
Heber	7640	2/28	13	4.7	5.4	3.6
HEBER SNOTEL	7640	3/1	--	4.5	7.3	---
Maverick Fork	9050	2/28	49	14.1	9.5	8.1
MAVERICK FORK SNOTEL	9200	3/1	--	16.9	7.9	---
McNary	7225	NO SURVEY			4.0	1.9
MCNARY SNOTEL	7225	---	--	---	3.4	---
Milk Ranch	7000	NO SURVEY			0.6	0.7
Mt. Ord (A)	11000	NOT SCHEDULED			---	---
Nutriosos *	8500	2/28	11	3.6	1.4	1.9
Promontory Butte	7900	3/1	54	19.4	16.6	11.5**
PROMONTORY SNOTEL	7900	3/1	--	24.1	---	---
Smith Cienega (A)	9850	NOT SCHEDULED			---	---
Sunrise Summit	10600	NO SURVEY			14.8	12.2**
Wilson Lake	9000	NO SURVEY			12.0	9.4**
Workman Creek	6900	3/1	20	7.4	---	5.4
WORKMAN CREEK SNOTEL	6900	---	--	---	7.6	---
LOWER COLORADO RIVER						
Bill Williams Intermediate	8550	NO SURVEY			13.8	7.4**
Bill Williams Summit	8950	NO SURVEY			16.6	10.1**
Bright Angel	8400	2/28	58	15.9	---	---
Chalender *	7100	2/28	13	4.9	7.8	2.4
Fort Valley	7350	2/28	10	3.6	4.5	1.6
Grand Canyon	7500	2/28	15	5.3	1.9	1.4
Williams Ski Run	7720	2/28	45	13.7	14.2	6.6**
† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.						

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

SNOW ABOUT MARCH 1, 1983

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
					Last Year	Average †
GILA RIVER						
Bear Wallow	8100	2/28	15	6.8	5.4	3.3
Beaver Head	8000	2/28	20	6.7	2.1	2.3
Coronado Trail	8400	2/28	22	7.0	2.9	2.7
CORONADO TRAIL SNOTEL	8400	3/1	--	5.9	2.0	---
Emory Pass #2*	7800	2/25	12	4.2	0.2	1.5**
Frisco Divide	8000	2/28	16	4.8	2.2	2.3
FRISCO DIVIDE SNOTEL	8000	3/1	--	6.3	2.4	---
Hannagan Meadows *	9090	2/28	53	17.0	9.5	8.2**
HANNAGAN MEADOWS SNOTEL	8960	3/1	--	20.3	10.7	---
Hummingbird (A)	10550	2/28	62	18.6	11.9	13.8**
LOOKOUT MOUNTAIN SNOTEL	8150	3/1	--	4.3	2.5	---
McKnight Cabin * (A)	9300	3/1	31	10.8	7.0	3.8**
Mogollon	7000	NO SURVEY			---	0.7
Nutrioso	8500	2/28	11	3.6	1.4	1.9
Redstone Trail	8600	NO SURVEY			---	6.6
Rose Canyon	7300	2/28	7	3.0	0.6	1.8
SIGNAL PEAK SNOTEL	8360	---	--	---	9.9	---
Silver Creek Divide	9070	NO SURVEY			---	10.0**
SILVER CREEK SNOTEL	9070	3/1	--	17.9	10.8	---
State Line	8000	2/28	23	7.0	1.7	2.2
Whitewater (A)	10750	2/28	102	28.6	19.4	17.0**
VERDE RIVER						
Baker Butte	7330	2/28	28	10.6	7.9	6.0**
BAKER BUTTE SNOTEL	7330	3/1	--	13.6	6.8	---
Baker Butte #2	7700	NOT SCHEDULED			15.7	11.4**
Camp Wood	5700	2/28	0	0.0	0.0	0.2
Chalender *	7100	2/28	13	4.9	7.8	2.4
Copper Basin Divide	6720	2/28	5	1.9	0.8	1.2
Fort Valley	7350	2/28	10	3.6	4.5	1.6
FRY SNOTEL	7200	---	--	---	8.2	---
Gaddes Canyon	7600	2/27	36	12.3	12.8	4.8
Happy Jack	7630	2/28	26	9.8	10.0	3.3
Iron Springs *	6200	2/28	0	0.0	0.0	0.2
Mingus Mountain	7100	2/27	4	1.1	0.6	0.7
Mormon Lake *	7350	2/28	23	8.7	9.1	4.0
Mormon Mountain	7500	2/28	32	12.8	12.1	5.0
MORMON MOUNTAIN SNOTEL	7500	3/1	--	12.1	10.2	---
Mormon Mtn. Summit #2	8470	NOT SCHEDULED			---	---
Newman Park	6750	2/28	4	1.4	4.7	1.7
Snow Bowl #1	10260	2/27	48	15.7	18.0	8.9
Snow Bowl #2	11000	2/27	65	21.2	14.4	13.9**
SUGAR LOAF SNOTEL	6120	3/1	--	0.0	0.0	---
White Horse Lake Jct.	7180	2/28	20	7.0	-7.0	2.8**
WHITE HORSE LAKE SNOTEL	7180	3/1	--	10.2	8.0	---
White Spar	6000	2/28	0	0.0	0.0	0.2

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

SNOW ABOUT MARCH 1, 1983

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
LITTLE COLORADO RIVER						
Baldy	9220	2/28	40	12.6	8.0	6.5
BALDY SNOTEL	9220	3/1	--	14.7	8.5	---
Canyon Creek	7500	2/28	13	4.5	4.0	3.3
Canyon Point	7600	2/28	20	6.8	6.5	3.8**
Cheese Springs	8600	2/28	27	7.4	7.5	6.5**
Forest Dale	6430	NO SURVEY			0.0	0.6
Ft. Apache	9160	2/28	39	12.2	9.0	7.1
Fort Valley	7350	2/28	10	3.6	4.5	1.6
Happy Jack	7630	2/28	26	9.8	10.0	3.3
Heber	7640	2/28	13	4.7	5.4	3.6
HEBER SNOTEL	7640	3/1	--	4.5	7.3	---
Lake Mary	6970	2/28	16	6.7	6.1	---
McNary	7225	NO SURVEY			4.0	1.9
MCNARY SNOTEL	7225	---	--	---	3.4	---
Mormon Lake	7350	2/28	23	8.7	9.1	4.0
Mormon Mountain	7500	2/28	32	12.8	12.1	5.0
MORMON MOUNTAIN SNOTEL	7500	3/1	--	12.1	10.2	---
Mormon Mtn. Summit #2	8470	NOT SCHEDULED			---	---
Nutriosio *	8500	2/28	11	3.6	1.4	1.9
Promontory Butte	7900	3/1	54	19.4	16.6	11.5**
PROMONTORY SNOTEL	7900	3/1	--	24.1	---	---
Snow Bowl #1	10260	2/27	48	15.7	18.0	8.9
Snow Bowl #2	11000	2/27	65	21.2	14.4	13.9**
Wilson Lake	9000	NO SURVEY			12.0	9.4**

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation; water content estimated. Snotel data is edited.

SNOW ABOUT FEBRUARY 15, 1983

SNOW ABOUT FEBRUARY 15, 1983		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
SALT RIVER						
Baldy *	9220	2/15	47	12.9	6.0	5.9
BALDY SNOTEL	9220	2/15	--	14.6	8.4	---
Beaver Head	8000	2/15	27	7.8	2.8	2.7
BONITA ROCK SNOTEL	8270	---	--	---	9.9	---
Canyon Creek	7500	2/14	24	7.0	5.6	3.5
Canyon Point	7600	2/14	30	8.6	8.6	4.0**
Coronado Trail	8400	2/15	30	8.2	3.9	2.5
CORONADO TRAIL SNOTEL	8400	2/15	--	7.4	4.0	---
Forest Dale	6430	NO SURVEY			1.2	1.1
Ft. Apache	9160	2/15	45	12.2	6.5	6.4
Hannagan Meadows	9090	2/15	60	17.4	7.8	7.9**
HANNAGAN MEADOWS SNOTEL	8960	2/15	--	19.8	9.6	---
Hawley Lake	8250	NO SURVEY			11.6	6.0**
HAWLEY LAKE SNOTEL	8250	---	--	---	8.4	---
Heber	7640	2/14	23	6.8	7.3	3.7
HEBER SNOTEL	7640	2/15	--	5.1	9.6	---
Maverick Fork	9050	NOT SCHEDULED			7.6E	7.4
MAVERICK FORK SNOTEL	9200	2/15	--	17.2	7.6	---
McNary	7225	NO SURVEY			6.7	2.4
MCNARY SNOTEL	7225	---	--	---	5.1	---
Milk Ranch	7000	NO SURVEY			4.1	1.5
Mt. Ord (A)	11000	NOT SCHEDULED			---	---
Nutriosio *	8500	2/15	18	5.6	2.2	1.9
Promontory Butte	7900	2/15	62	20.2	16.0	10.0**
PROMONTORY SNOTEL	7900	---	--	---	---	---
Smith Cienega (A)	9850	NOT SCHEDULED			---	---
Sunrise Summit	10600	NO SURVEY			14.5	11.4**
Wilson Lake	9000	NO SURVEY			9.0	8.3**
Workman Creek	6900	2/17	24	7.8	9.4	5.5
WORKMAN CREEK SNOTEL	6900	---	--	---	11.3	---
LOWER COLORADO RIVER						
Bill Williams Intermediate	8550	2/16	53	15.3	14.9	7.0**
Bill Williams Summit	8950	2/16	58	16.8	16.1	9.0**
Bright Angel	8400	2/14	50	13.6	9.0	---
Chalender *	7100	2/14	18	4.7	8.0	2.6
Fort Valley	7350	2/15	16	5.3	6.0	2.0
Grand Canyon	7500	2/14	16	4.5	5.7	1.5
Williams Ski Run	7720	2/16	45	13.2	13.9	6.1**

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited. E = estimate.

SNOW ABOUT FEBRUARY 15, 1983

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
					Last Year	Average †
GILA RIVER						
Bear Wallow	8100	2/14	24	8.3	9.8	3.8
Beaver Head	8000	2/15	27	7.8	2.8	2.7
Coronado Trail	8400	2/15	30	8.2	3.9	2.5
CORONADO TRAIL SNOTEL	8400	2/15	--	7.4	4.0	---
Emory Pass #2 *	7800	2/14	18	5.7	0.4	2.0**
Frisco Divide	8000	2/11	23	6.2	2.5	2.3
FRISCO DIVIDE SNOTEL	8000	2/15	--	8.6	3.7	---
Hannagan Meadows *	9090	2/15	60	17.4	7.8	7.9**
HANNAGAN MEADOWS SNOTEL	8960	2/15	--	19.8	9.6	---
Hummingbird (A)	10550	NOT SCHEDULED			---	12.6**
LOOKOUT MOUNTAIN SNOTEL	8150	2/15	--	8.0	3.0	---
McKnight Cabin * (A)	9300	NOT SCHEDULED			---	3.4**
Mogollon	7000	NO SURVEY			---	1.2
Nutrioso	8500	2/15	18	5.6	2.2	1.9
Redstone Trail	8600	NO SURVEY			---	6.3
Rose Canyon	7300	2/14	13	5.2	4.6	2.5
SIGNAL PEAK SNOTEL	8360	2/15	--	12.6	10.5	---
Silver Creek Divide	9070	NO SURVEY			---	9.4**
SILVER CREEK SNOTEL	9070	2/15	--	17.4	8.9	---
State Line	8000	2/11	32	7.1	2.8	2.4
Whitewater (A)	10750	NOT SCHEDULED			---	15.1**
VERDE RIVER						
Baker Butte	7330	2/14	39	12.5	8.4	6.2**
BAKER BUTTE SNOTEL	7330	2/15	--	15.7	8.5	---
Baker Butte #2	7700	2/14	65	20.4	12.6	9.9**
Camp Wood	5700	2/14	T	0.0	0.0	0.4
Chalender *	7100	2/14	18	4.7	8.0	2.6
Copper Basin Divide	6720	2/11	13	4.1	2.6	2.0
Fort Valley	7350	2/15	16	5.3	6.0	2.0
FRY SNOTEL	7200	---	--	---	10.8	---
Gaddes Canyon	7600	2/14	34	11.4	10.5	4.5
Happy Jack	7630	2/14	34	9.7	10.7	3.8
Iron Springs *	6200	2/11	2	0.7	0.0	0.4
Mingus Mountain	7100	2/14	10	3.1	0.1	1.1
Mormon Lake *	7350	2/14	31	10.1	9.8	4.1
Mormon Mountain	7500	2/14	39	13.6	11.9	4.8
MORMON MOUNTAIN SNOTEL	7500	2/15	--	11.4	10.2	---
Mormon Mtn. Summit #2	8470	NOT SCHEDULED			---	---
Newman Park	6750	2/14	15	4.7	6.6	2.2
Snow Bowl #1	10260	2/16	46	14.1	16.9	8.4
Snow Bowl #2	11000	2/16	69	21.3	12.5	13.3**
SUGAR LOAF SNOTEL	6120	---	--	---	1.5	---
White Horse Lake Jct.	7180	2/14	24	6.8	7.7	3.0**
WHITE HORSE LAKE SNOTEL	7180	2/15	--	11.8	9.5	---
White Spar	6000	2/11	1	0.4	0.0	0.6

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited. E = estimate.

SNOW ABOUT FEBRUARY 15, 1983

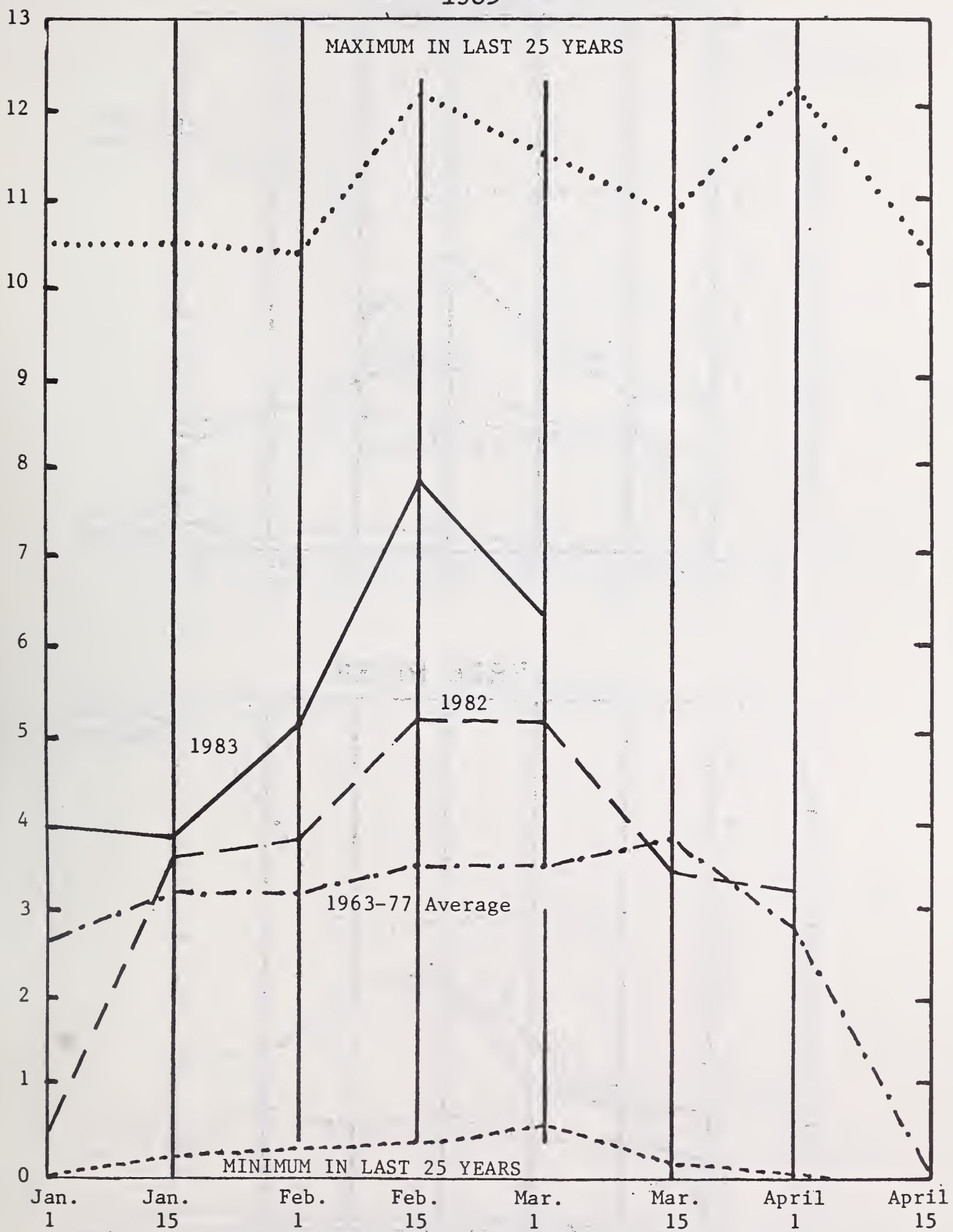
DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
LITTLE COLORADO RIVER						
Baldy	9220	2/15	47	12.9	6.0	5.9
BALDY SNOTEL	9220	2/15	--	14.6	3.8	---
Canyon Creek	7500	2/14	24	7.0	5.6	3.5
Canyon Point	7600	2/14	30	8.6	8.6	4.0**
Cheese Springs	8600	2/15	32	8.2	7.5	5.6**
Forest Dale	6430	NO SURVEY			1.2	1.1
Ft. Apache	9160	2/15	45	12.2	6.5	6.4
Fort Valley	7350	2/15	16	5.3	6.0	2.0
Happy Jack	7630	2/14	34	9.7	10.7	3.8
Heber	7640	2/14	23	6.8	7.3	3.7
HEBER SNOTEL	7640	2/15	--	5.1	9.6	---
Lake Mary	6970	2/14	20	6.1	6.1	---
McNary	7225	NO SURVEY			6.7	2.4
M McNARY SNOTEL	7225	---	--	---	5.1	---
Mormon Lake	7350	2/14	31	10.1	9.8	4.1
Mormon Mountain	7500	2/14	39	13.6	11.9	4.8
MORMON MOUNTAIN SNOTEL	7500	2/15	--	11.4	10.2	---
Mormon Mnt. Summit #2	8470	NOT SCHEDULED			---	---
Nutriosio *	8500	2/15	18	5.6	2.2	1.9
Promontory Butte	7900	2/15	62	20.2	16.0	10.0**
PROMONTORY SNOTEL	7900	---	--	---	---	---
Snow Bowl #1	10260	2/16	46	14.1	16.9	8.4
Snow Bowl #2	11000	2/16	69	21.3	12.5	13.3**
Wilson Lake	9000	NO SURVEY			9.0	8.3**

† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

ARIZONA

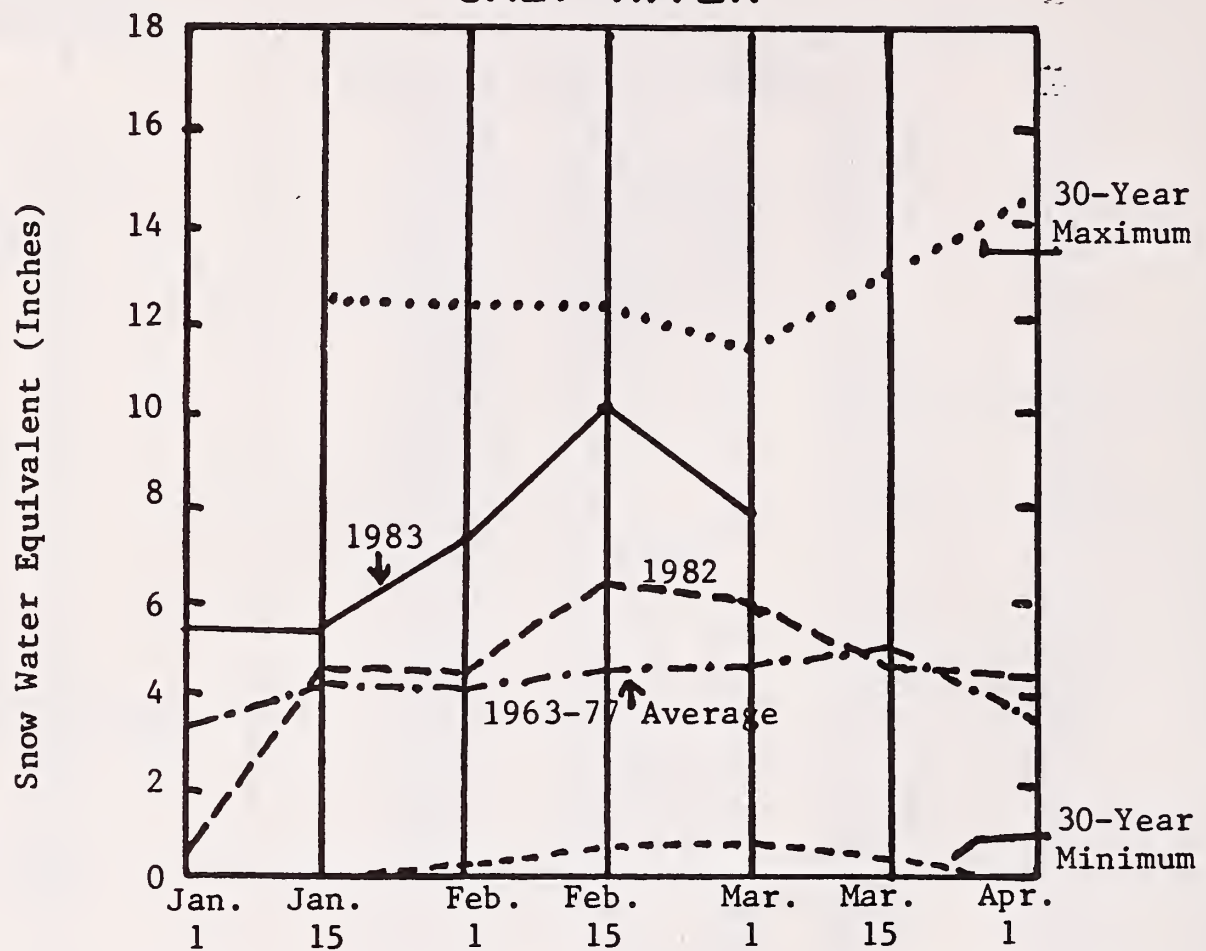
AVERAGE SNOW COVER

1983

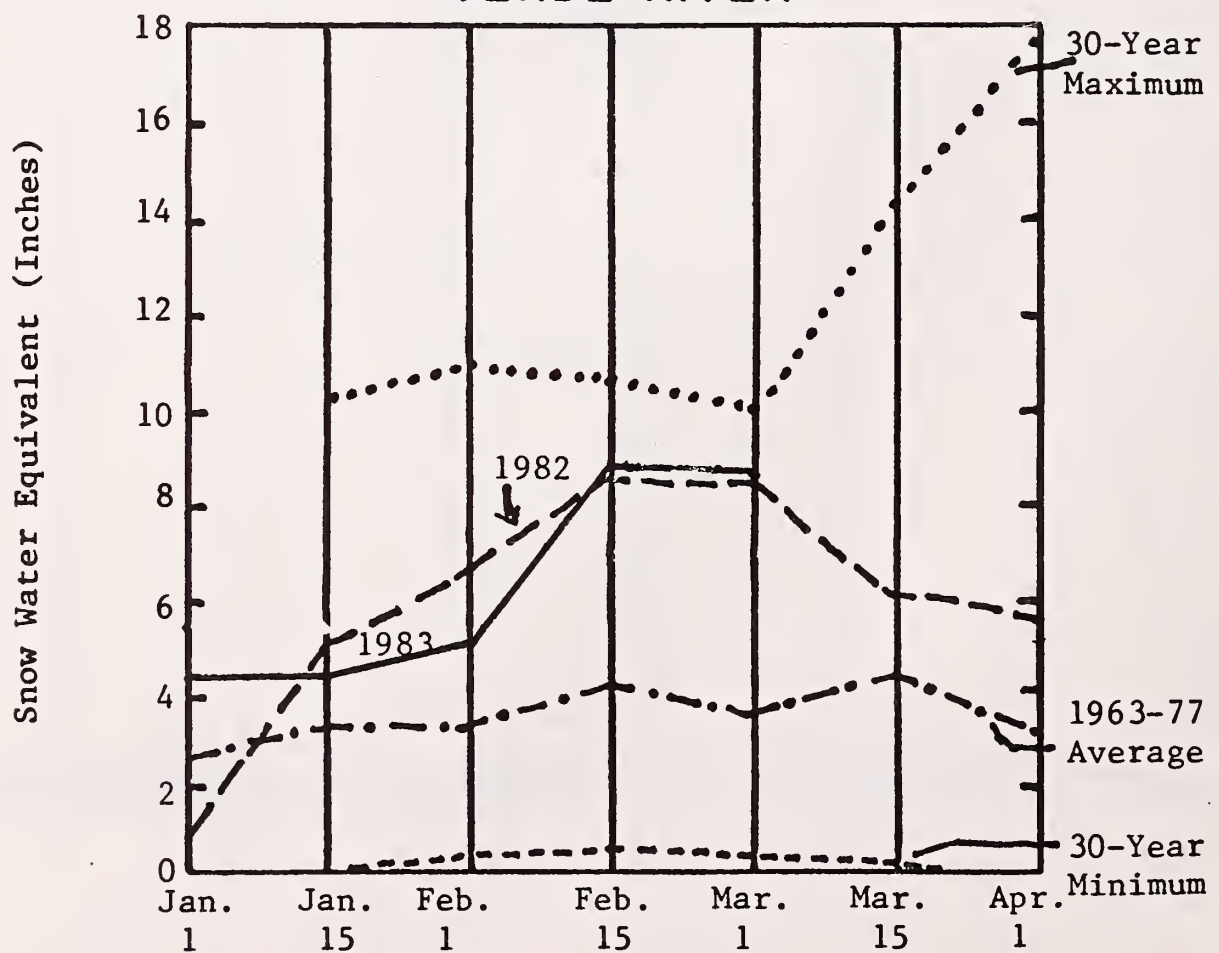


WATERSHED SNOW COVER

SALT RIVER



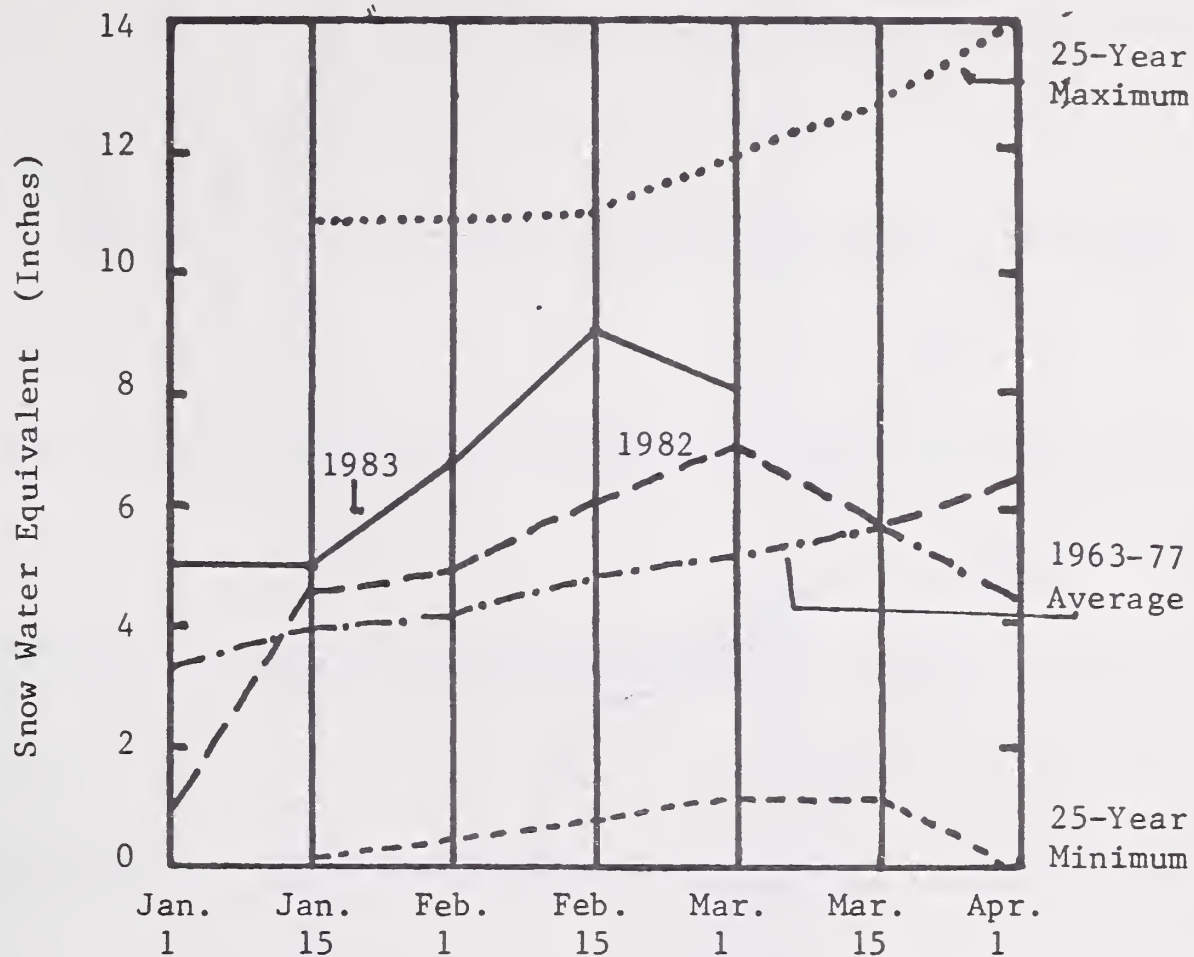
VERDE RIVER



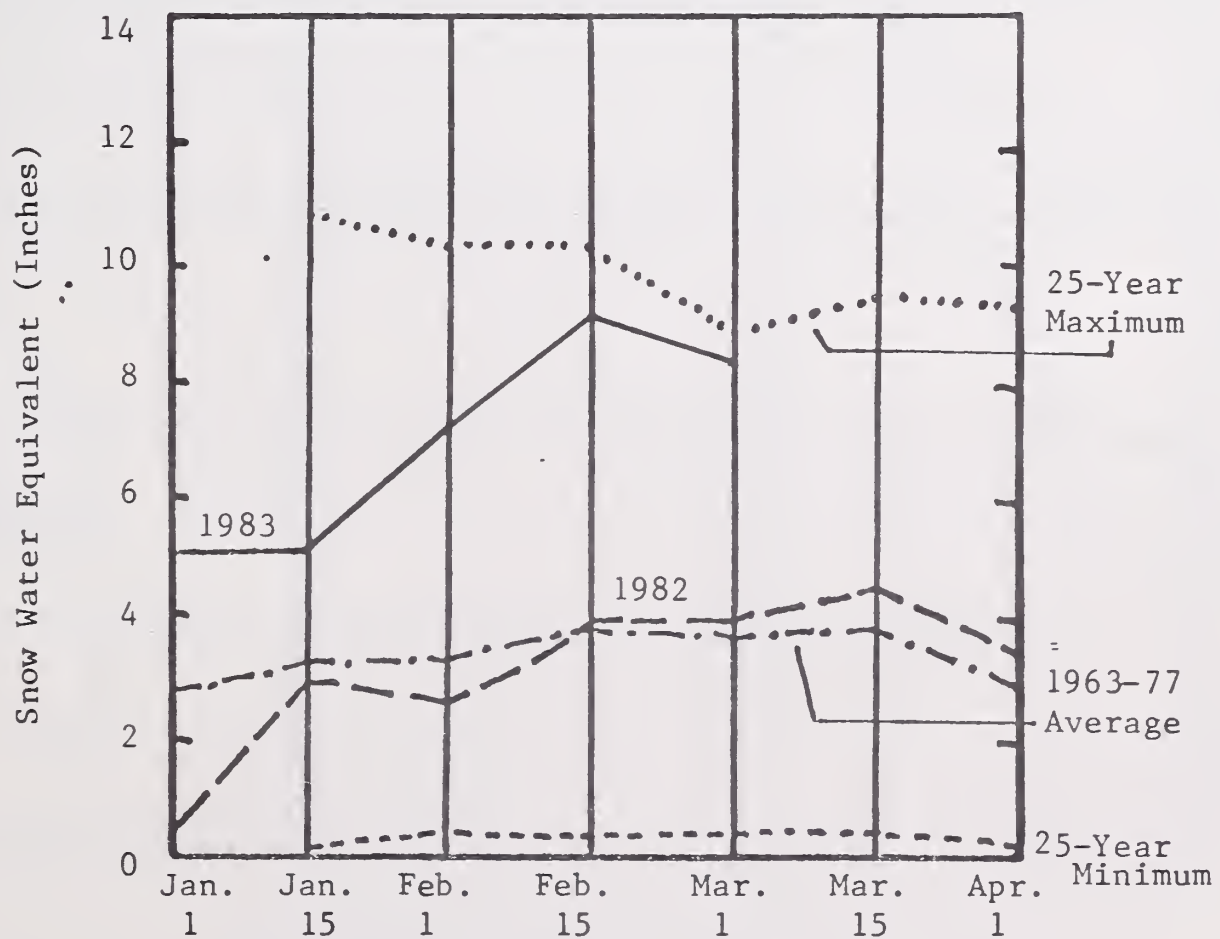
WATERSHED SNOW COVER

1983

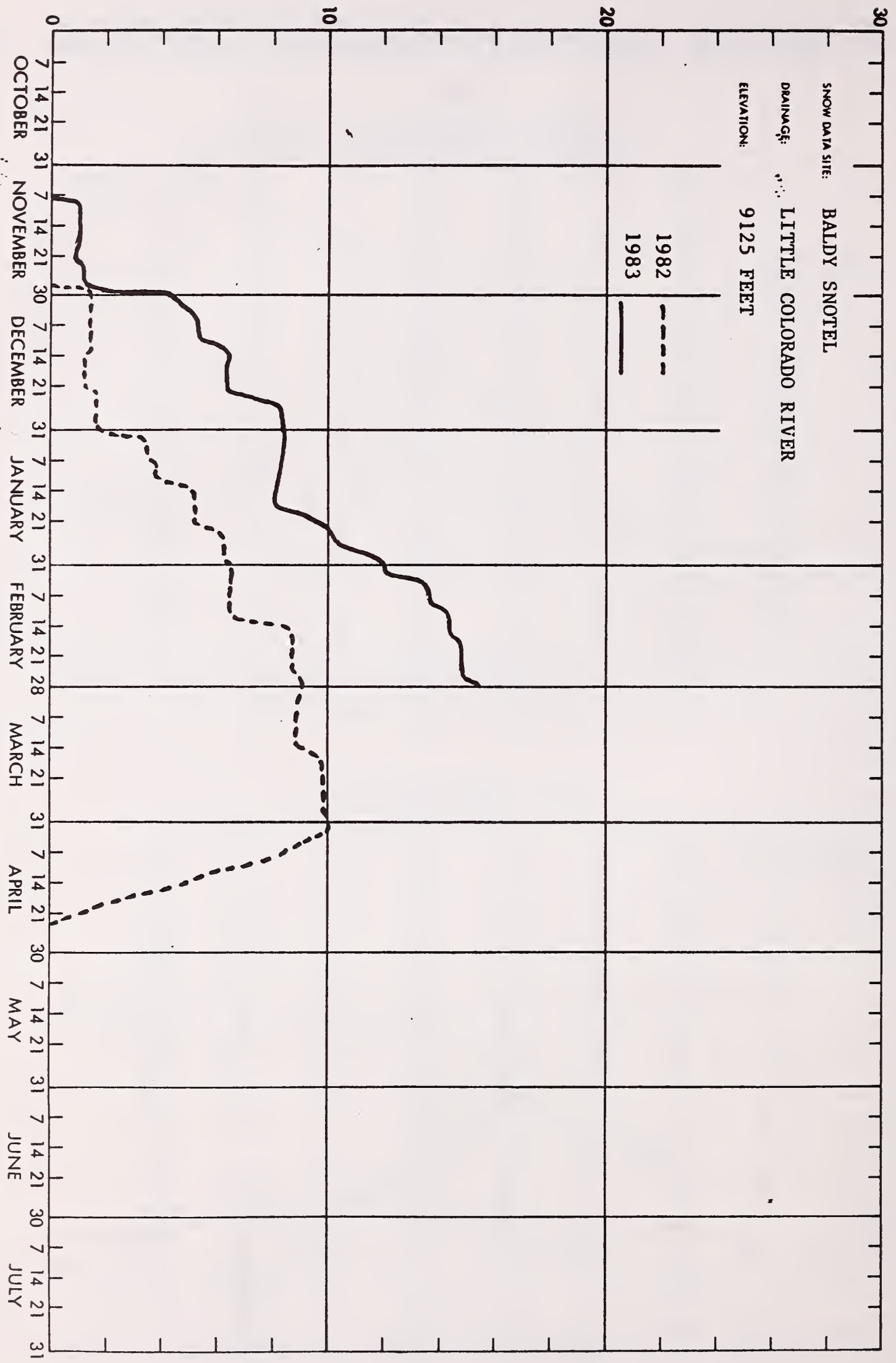
LITTLE COLORADO RIVER

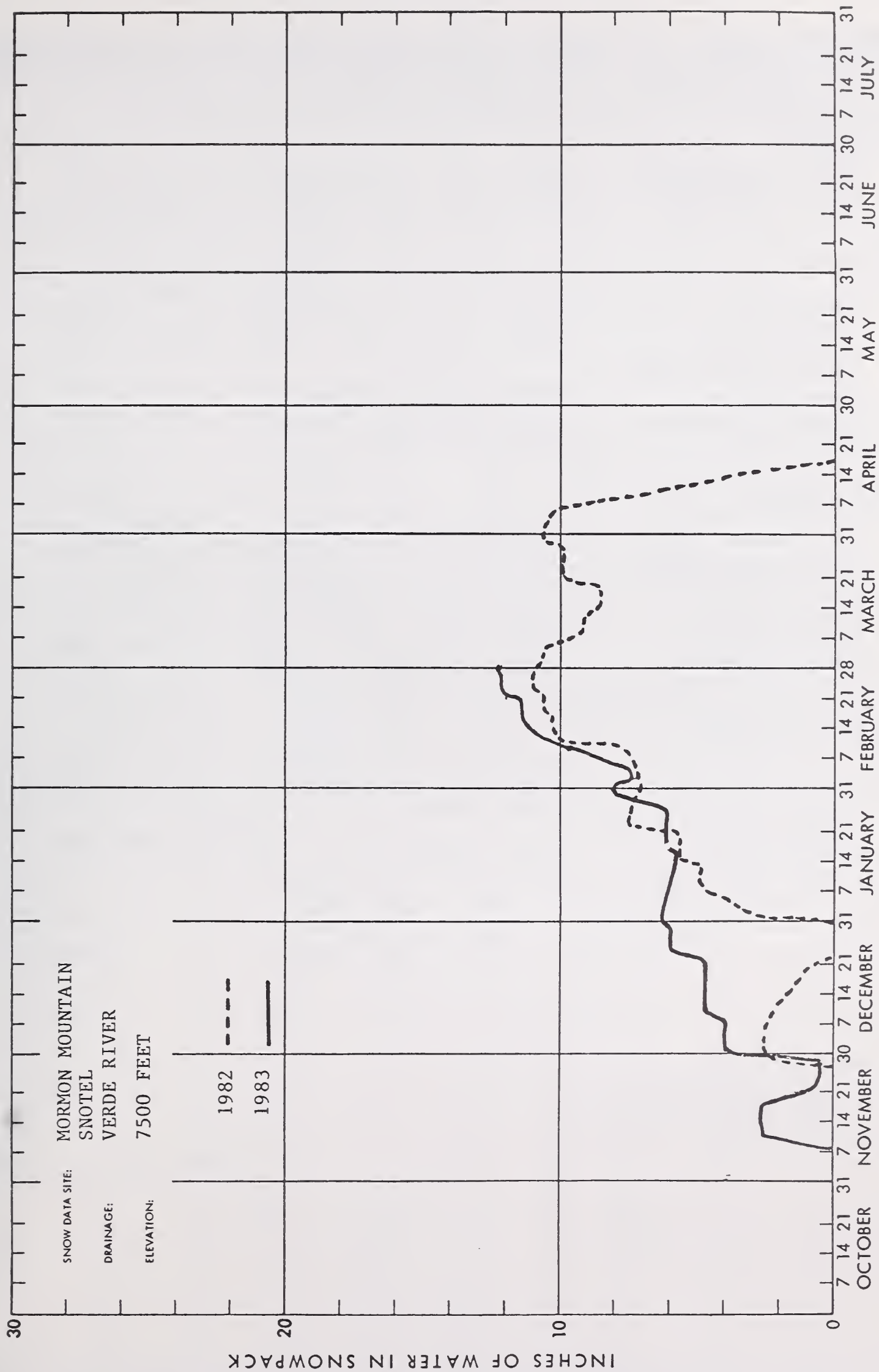


GILA RIVER



INCHES OF WATER IN SNOWPACK





PRECIPITATION (Inches) ABOUT MARCH 1, 1983

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
GILA RIVER							
Silver Creek Divide	9000	---	---	2.25*	---	10.51*	---
Hannagan Meadows **	9030	---	---	2.24	---	9.60	---
Frisko Divide **	8000	2/28	2.45	1.21	10.48	4.53	231
SALT RIVER							
Canyon Point	7600	2/28	6.13	2.50*	23.38	12.63	185
Hannagan Meadows **	9030	---	---	2.24	---	9.60	---
Little Wildcat (Heber Snow Course)	7600	2/28	5.37	2.17	19.17	11.18	171
Maverick Fork	9050	2/28	4.50	2.16	17.82	9.88	180
Workman Creek **	6970	2/28	3.36	3.01	18.81	13.19	143
Wilson Lake	9100	NO REPORT		1.96*	---	8.96*	---
VERDE RIVER							
Baker Butte	7300	2/28	7.59	2.84*	25.19	12.36*	204
Copper Basin Divide	6720	2/28	5.26	2.09	14.86	8.89	167
Fort Valley **	7350	2/28	4.44	1.44	13.93	6.66	209
Happy Jack **	7480	2/28	5.88	2.24	20.98	9.36	224
Mingus Mountain	7660	2/27	3.97	2.13	17.71	7.25	224
Mormon Mountain	7500	2/28	6.10	2.76	22.92	13.20	174
White Horse Lake Jct.**	7150	NO REPORT		3.91	---	11.21	---
LITTLE COLORADO							
Greer Lakes	8500	2/28	1.90	1.06	6.83	4.99	137
Little Wildcat (Heber Snow Course)	7600	2/28	5.37	2.17	19.17	11.18	171
Sheep Crossing (Baldy Snow Course)	9125	2/28	3.70	1.94	12.78	8.87	144

1963-77 Average

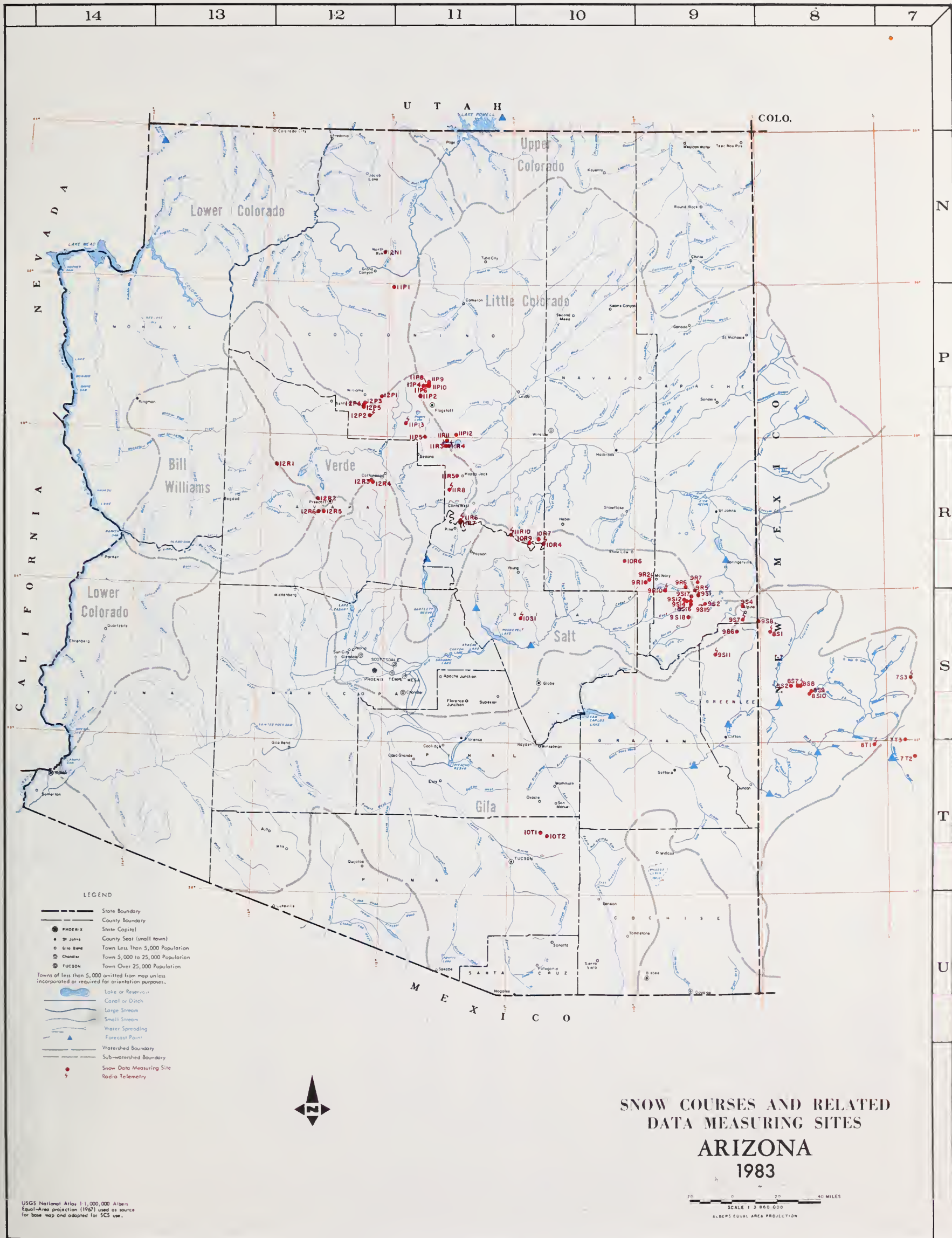
* Adjusted Average

** Data Supplied by U.S. Forest Service

PRECIPITATION (Inches) ABOUT MARCH 1, 1983 (SNOTEL SITES)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average +	This Year	Average +	Percent of Average
<u>GILA RIVER</u>							
Coronado Trail	8400	3/1	2.2	---	12.4	---	---
Hannagan Meadows	8960	3/1	2.8	---	18.6	---	---
Frisco Divide	8000	3/1	1.4	---	10.3	---	---
Silver Creek Divide	9000	3/1	3.4	---	19.7	---	---
Lookout Mountain	8150	3/1	2.9	---	12.4	---	---
Signal Peak	8360	3/1	---	---	---	---	---
<u>SALT RIVER</u>							
Promontory	7930	3/1	---	---	---	---	---
Heber	7640	3/1	3.4	---	21.0	---	---
Hawley Lake	8250	---	---	---	---	---	---
McNary	7200	---	---	---	---	---	---
Bonita Rock	8270	---	---	---	---	---	---
Hannagan Meadows	8960	3/1	2.8	---	18.6	---	---
Maverick Fork	9050	3/1	3.3	---	18.0	---	---
Coronado Trail	8400	3/1	2.2	---	12.4	---	---
Workman Creek	6900	3/1	5.4	---	29.2	---	---
<u>VERDE RIVER</u>							
White Horse Lake	7180	3/1	4.7	---	19.0	---	---
Fry	7200	3/1	---	---	---	---	---
Mormon Mountain	7500	3/1	5.0	---	23.9	---	---
Sugar Loaf	6120	3/1	---	---	---	---	---
Baker Butte	7300	3/1	5.7	---	26.0	---	---
<u>LITTLE COLORADO</u>							
Baldy	9125	3/1	2.8	---	13.9	---	---
McNary	7200	---	---	---	---	---	---
Heber	7640	3/1	3.4	---	21.0	---	---
Promontory	7930	3/1	---	---	---	---	---

Snotel data preliminary



INDEX TO SNOW COURSES

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS-CF*	1968
11R6PSPRT	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
9S1APSPRT	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
9S16	Baldy #3	13	6N	26E	10950	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill William Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
9S18PSPRT	Bonito Rock		5N	26E	8270	Salt	SCS	1979
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
9S7PSPRT	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
11P13PSPRT	Fry	35	20N	5E	7220	Verde	SCS	1978
10R6	Forest Dale	2	9N	21E	6430	Salt	BIA	1939
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1PSPRT	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gaddes Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11PSPRT	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
9R10PSPRT	Hawley Lake	13	7N	24E	8300	Salt	BIA	1966
10R4PSPRT	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	SCS-CF*	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	SCS	1967
12R2	Iron Springs	22	14N	3W	6200	Little Colorado	SCS	1946
11P12	Lake Mary	21	19N	9E	6930	Little Colorado	SCS	1975
7S3PSPRT	Lookout Mountain	1	10S	10W	8500	Gila	SCS	1978
9S2APSPRT	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7T3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
9R2PSPRT	McNary	23	8N	23E	7200	Salt	BIA	1939
9R1	Milk Ranch	33	8N	23E	7000	Salt	BIA	1941
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3APSPRT	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
11R11	Mormon Mountain Summit #2	2	18N	8E	8470	Little Colorado	SCS	1975
9S12A	Mt. Ord	4	6N	26E	11200	Salt	SRP-SCS	1966
11P5	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutriosio	23	6N	30E	8500	San Francisco	FS	1938
11R10PSPRT	Promontory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8T1PSPRT	Signal Peak	13	16S	13W	8360	Gila	SCS	1977
8S8PSPRT	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
9S14A	Smith Cienega	10	6N	26E	10050	Salt	SRP-SCS	1966
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
9S17	Sunrise Summit	36	7N	26E	10600	Salt	SCS	1972
11R8PSPRT	Sugarloaf	8	8E	14N	6120	Verde	SCS	1978
12P2PSPRT	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
9R6P	Wilson Lake	4	7N	26E	9000	Salt	SCS	1966
10S1PSPRT	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker
P Precipitation Storage Gage
R Radio Telemetry (SNOTEL)

SP Snow Pressure Pillow
T Temperature
** NM Principal Meridian
* City of Flagstaff

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

Department of Agriculture
Soil Conservation Service
Forest Service
 Apache-Sitgreaves Forest
 Coconino Forest
 Coronado Forest
 Gila Forest
 Kaibab Forest
 Prescott Forest
 Rocky Mountain Forest and Range
 Experiment Station
 Tonto Forest
Department of Commerce
 NOAA, National Weather Service
Department of Interior
 Bureau of Reclamation
 Region III
 Geological Survey
 Arizona District
 New Mexico District
 Bureau of Indian Affairs
 Fort Apache Reservation
 San Carlos Irrigation Project
 National Park Service
 Grand Canyon National Park
Gila Water Commissioner
 Safford, Arizona

STATE

Arizona Game and Fish Department

Arizona State Parks Board

Arizona Department of Water Resources

University of Arizona
 Arizona Agricultural Experiment Station
 Water Resource Research Center
 Department of Watershed Management

MUNICIPAL

City of Flagstaff

IRRIGATION PROJECTS

Salt River Valley Water User's Association
 Phoenix, Arizona
San Carlos Irrigation and Drainage District
 Coolidge, Arizona
Maricopa County Municipal Water Conservation District
 Peoria, Arizona

PRIVATE

Southwest Forest Industries, Inc.
 Phoenix, Arizona
Fort Apache Indian Reservation
 White Mountain Recreation Enterprises

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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